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Gln Gly Pro Pro Gly Val Asp Leu Tyr Arg Leu Glu Lys Leu Ser Ser
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Lys Pro Ser Leu Ser Ala Gln Pro Gly Pro Ala Val Ser Ser Gly Gly
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Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Arg Asp Pro Tyr Leu Trp Ser
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Ala Pro Ser Asp Pro Leu Glu Leu Val Val Thr Gly Thr Ser Val Thr
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Pro Ser Arg Leu Pro Thr Glu Pro Pro Ser Ser Val Ala Glu Phe Ser
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Thr Glu Thr Ser Arg Ser Ile Thr Thr Ser Pro Lys Glu Ser Asp Ser
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Tyr Ser Phe Ser Ser Arg Asp Pro Tyr Leu Trp Ser Ala Pro Ser Asp
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Ser Arg Arg Lys Arg Leu Arg His Arg Gly Arg Ala Val Gln Arg Pro
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Ser Ala Gln Pro Gly Pro Ala Val Ser Ser Gly Gly Asp Val Thr Leu 100 105 110

Gln Cys Gln Thr Arg Tyr Gly Phe Asp Gln Phe Ala Leu Tyr Lys Glu 115 120 125

Gly Asp Pro Ala Pro Tyr Lys Asn Pro Glu Arg Trp Tyr Arg Ala Ser 130 135 140

Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser Gly Thr Tyr Arg Cys 145 150 155 160

Tyr Ser Phe Ser Ser Arg Asp Pro Tyr Leu Trp Ser Ala Pro Ser Asp 165 170 175

Pro Leu Glu Leu Val Val Thr Gly Thr Ser Val Thr Pro Ser Arg Leu 180 185 190

Pro Thr Glu Pro Pro Ser Ser Val Ala Glu Phe Ser Glu Ala Thr Ala 195 200 205

Glu Leu Thr Val Ser Phe Thr Asn Lys Val Phe Thr Thr Glu Thr Ser 210 215 220

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Pro Val Lys His Ser Ser Pro Arg Arg Glu Met Ala Ser Pro Pro Ser
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Gln Val Ile Gln Thr Gln Ser Gly Pro Leu Pro Lys Pro Ser Leu Gln
                                 25
             20
Ala Gln Pro Ser Ser Leu Val Pro Leu Gly Gln Ser Val Ile Leu Arg
                             40
        35
Cys Gln Gly Pro Pro Asp Val Asp Leu Tyr Arg Leu Glu Lys Leu Lys
                         55
                                             60
Pro Glu Lys Tyr Glu Asp Gln Asp Phe Leu Phe Ile Pro Thr Met Glu
                                         75
                     70
Arg Ser Asn Ala Gly Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser His
                                     90
Trp Ser Leu Pro Ser Asp Gln Leu Glu Leu Ile Ala Thr Gly Val Tyr
                                                      110
                                 105
 Ala Lys Pro Ser Leu Ser Ala His Pro Ser Ser Ala Val Pro Gln Gly
                                                  125
                             120
         115
 Arg Asp Val Thr Leu Lys Cys Gln Ser Pro Tyr Ser Phe Asp Glu Phe
                                              140
                         135
     130
 Val Leu Tyr Lys Glu Gly Asp Thr Gly Pro Tyr Lys Arg Pro Glu Lys
                     150
                                          155
 Trp Tyr Arg Ala Asn Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser
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                                     170
 Gly Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Ser Pro Tyr Leu Trp
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185

180

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Ser Ala Pro Ser Asp Pro Leu Val Leu Val Val Thr Gly Leu Ser Ala
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Thr Pro Ser Gln Val Pro Thr Glu Glu Ser Phe Pro Val Thr Glu Ser
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                     215
Ser Arg Arg Pro Ser Ile Leu Pro Thr Asn Lys Ile Ser Thr Thr Glu
                                     235
                   230
Lys Pro Met Asn Ile Thr Ala Ser Pro Glu Gly Leu Ser Pro Pro Ile
                                 250
              245
Gly Phe Ala His Gln His Tyr Ala Lys Gly Asn Leu Val Arg Ile Cys
                                                 270
                              265
          260
Leu Gly Ala Thr Ile Ile Ile Leu Leu Gly Leu Leu Ala Glu Asp
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                                          285
Trp His Ser Arg Lys Lys Cys Leu Gln His Arg Met Arg Ala Leu Gln
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Arg Pro Leu Pro Pro Leu Pro Leu Ala
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Gln Val Ile Gln Thr
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Asp Gln Asp Phe Leu Phe Ile Pro Thr Met Glu Arg Ser Asn Ala Gly
                       55
Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser His Trp Ser Leu Pro Ser
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Asp Gln Leu Glu Leu Ile Ala Thr Gly Val Tyr Ala Lys Pro Ser Leu
               85
Ser Ala His Pro Ser Ser Ala Val Pro Gln Gly Arg Asp Val Thr Leu
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           100
Lys Cys Gln Ser Pro Tyr Ser Phe Asp Glu Phe Val Leu Tyr Lys Glu
                           120
Gly Asp Thr Gly Pro Tyr Lys Arg Pro Glu Lys Trp Tyr Arg Ala Asn
                      135
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Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser Gly Thr Tyr Arg Cys
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Tyr Ser Phe Ser Ser Ser Pro Tyr Leu Trp Ser Ala Pro Ser Asp
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Pro Leu Val Leu Val Val Thr Gly Leu Ser Ala Thr Pro Ser Gln Val

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Ile Leu Pro Thr Asn Lys Ile Ser Thr Thr Glu Lys Pro Met Asn Ile
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                                          220
Thr Ala Ser Pro Glu Gly Leu Ser Pro Pro Ile Gly Phe Ala His Gln
                   230
                                       235
His Tyr Ala Lys Gly Asn Leu Val Arg Ile Cys Leu Gly Ala Thr Ile
                                  250
               245
Ile Ile Ile Leu Leu Gly Leu Leu Ala Glu Asp Trp His Ser Arg Lys
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Lys Cys Leu Gln His Arg Met Arg Ala Leu Gln Arg Pro Leu Pro Pro
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Leu Pro Leu Ala
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Gln Val Ile Gln Thr Gln Ser Gly Pro Leu Pro Lys Pro Ser Leu Gln
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Cys Gln Gly Pro Pro Asp Val Asp Leu Tyr Arg Leu Glu Lys Leu Lys
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Pro Glu Lys Tyr Glu Asp Gln Asp Phe Leu Phe Ile Pro Thr Met Glu
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Arg Ser Asn Ala Gly Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser His
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                85
Trp Ser Leu Pro Ser Asp Gln Leu Glu Leu Ile Ala Thr Gly Val Tyr
                               105
           100
Ala Lys Pro Ser Leu Ser Ala His Pro Ser Ser Ala Val Pro Gln Gly
                           120
Arg Asp Val Thr Leu Lys Cys Gln Ser Pro Tyr Ser Phe Asp Glu Phe
                                           140
                       135
Val Leu Tyr Lys Glu Gly Asp Thr Gly Pro Tyr Lys Arg Pro Glu Lys
                                       155
                   150
Trp Tyr Arg Ala Asn Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser
                                   170
               165
Gly Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Ser Pro Tyr Leu Trp
                                                   190
                               185
Ser Ala Pro Ser Asp Pro Leu Val Leu Val Val Thr Gly Leu Ser Ala
                           200
                                              205
Thr Pro Ser Gln Val Pro Thr Glu Glu Ser Phe Pro Val Thr Glu Ser
                                           220
                        215
Ser Arg Arg Pro Ser Ile Leu Pro Thr Asn Lys Ile Ser Thr Thr Glu
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                    230
Lys Pro Met Asn Ile Thr Ala Ser Pro Glu Gly Leu Ser Pro Pro Ile
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                                   250
Gly Phe Ala His Gln His Tyr Ala Lys Gly Asn
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Leu Gln Arg Pro Leu Pro Pro Leu Pro Leu Ala
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                 5
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                                                                        180
 tgggggagcc ccgtgaccat ctggtgtcag gggagcctgg aggcccagga gtaccgactg
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 gccagattct ccatcccatc catgacagag caccatgcgg ggagataccg ctgccactat
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 tacagetetg caggetggte agageceage gaceceetgg agetggtgat gacaggatte
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                                                                      1140
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<213> Homo sapiens
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<400> 33

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actgagactt	ctaggagtat	caccaccagt	ccaaaggagt	cagactctcc	agctggtcct	780
gcccgccagt	actacaccaa	gggcaacctg	gtccggatat	gcctcggggc	tgtgatccta	840
ataatcctgg	cggggtttct	ggcagaggac	tggcacagcc	ggaggaagcg	cctgcggcac	900
aggggcaggg	ctgtgcagag	gccgcttccg	cccctgccgc	ccctcccgca	gacccggaaa	960
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<210> 34

<211> 339

<212> PRT

<213> Homo sapiens

<400> 34

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Glu Ala Thr Ala Glu Leu Thr Val Ser Phe Thr Asn Lys Val Phe Thr
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                                        235
Thr Glu Thr Ser Arg Ser Ile Thr Thr Ser Pro Lys Glu Ser Asp Ser
                245
                                    250
Pro Ala Gly Pro Ala Arg Gln Tyr Tyr Thr Lys Gly Asn Leu Val Arg
            260
                                265
Ile Cys Leu Gly Ala Val Ile Leu Ile Ile Leu Ala Gly Phe Leu Ala
                            280
                                                 285
Glu Asp Trp His Ser Arg Arg Lys Arg Leu Arg His Arg Gly Arg Ala
                        295
                                            300
Val Gln Arg Pro Leu Pro Pro Leu Pro Pro Leu Pro Gln Thr Arg Lys
                    310
                                        315
Ser His Gly Gly Gln Asp Gly Gly Arg Gln Asp Val His Ser Arg Gly
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Leu Cys Ser
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<210> 35 <211> 1017 <212> DNA

<213> Homo sapiens

<400> 35

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<210> 36 <211> 339 <212> PRT <213> Homo sapiens

<400> 36

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 Ser
 Pro
 Ser
 Pro
 Thr
 Ala
 Leu
 Phe
 Cys
 Leu
 Gly
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 Gly
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 Gly
 Pro
 Leu
 Pro
 P

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                                105
Lys Pro Ser Leu Ser Ala Gln Pro Gly Pro Ala Val Ser Ser Gly Gly
                            120
Asp Val Thr Leu Gln Cys Gln Thr Arg Tyr Gly Phe Asp Gln Phe Ala
                        135
Leu Tyr Lys Glu Gly Asp Pro Ala Pro Tyr Lys Asn Pro Glu Arg Trp
                    150
                                        155
Tyr Arg Ala Ser Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser Gly
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                                    170
Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Arg Asp Pro Tyr Leu Trp Ser
            180
                                185
Ala Pro Ser Asp Pro Leu Glu Leu Val Val Thr Gly Thr Ser Val Thr
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                            200
Pro Ser Arg Leu Pro Thr Glu Pro Pro Ser Ser Val Ala Glu Phe Ser
                        215
                                            220
Glu Ala Thr Ala Glu Leu Thr Val Ser Phe Thr Asn Lys Val Phe Thr
                    230
Thr Glu Thr Ser Arg Ser Ile Thr Thr Ser Pro Lys Glu Ser Asp Ser
                                    250
Pro Ala Gly Pro Ala Arg Gln Tyr Tyr Thr Lys Gly Asn Leu Val Arg
                                265
Ile Cys Leu Gly Ala Val Ile Leu Ile Ile Leu Ala Gly Phe Leu Ala
                            280
Glu Asp Trp His Ser Arg Arg Lys Arg Leu Arg His Arg Gly Arg Ala
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                                             300
Val Gln Arg Pro Leu Pro Pro Leu Pro Pro Leu Pro Gln Thr Arg Lys
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                                        315
Ser His Gly Gln Asp Gly Gly Arg Gln Asp Val His Ser Arg Gly
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Leu Cys Ser
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<210> 37

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                                                                   600
gtggtcacag gaacctctgt gacccccagc cggttaccaa cagaaccacc ttcctcggta
                                                                   660
gcagaattct cagaagccac cgctgaactg accgtctcat tcacaaacaa aqtcttcaca
                                                                   720
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                                                                   780
gcccgccagt actacaccaa gggcaacctg gtccggatat gcctcggggc tgtgatccta
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<210> 38
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<400> 38

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                            40
                                                45
Gln Gly Pro Pro Gly Val Asp Leu Tyr Arg Leu Glu Lys Leu Ser Ser
                        55
                                           60
Ser Arg Tyr Gln Asp Gln Ala Val Leu Phe Ile Pro Ala Met Lys Arg
                    70
                                       75
Ser Leu Ala Gly Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser Leu Trp
               85
                                   90
Ser Leu Pro Ser Asp Gln Leu Glu Leu Val Ala Thr Gly Val Phe Ala
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                               105
Lys Pro Ser Leu Ser Ala Gln Pro Gly Pro Ala Val Ser Ser Gly Gly
                            120
Asp Val Thr Leu Gln Cys Gln Thr Arg Tyr Gly Phe Asp Gln Phe Ala
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Leu Tyr Lys Glu Gly Asp Pro Ala Pro Tyr Lys Asn Pro Glu Arg Trp
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Tyr Arg Ala Ser Phe Pro Ile Ile Thr Ala Thr Ala Ala His Ser Gly
                                    170
Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Arg Asp Pro Tyr Leu Trp Ser
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Pro Ser Arg Leu Pro Thr Glu Pro Pro Ser Ser Val Ala Glu Phe Ser
Glu Ala Thr Ala Glu Leu Thr Val Ser Phe Thr Asn Lys Val Phe Thr
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                                        235
Thr Glu Thr Ser Arg Ser Ile Thr Thr Ser Pro Lys Glu Ser Asp Ser
                                    250
Pro Ala Gly Pro Ala Arg Gln Tyr Tyr Thr Lys Gly Asn Leu Val Arg
                                265
Ile Cys Leu Gly Ala Val Ile Leu Ile Ile Leu Ala Gly Phe Leu Ala
                            280
Glu Asp Trp His Ser Arg Arg Lys Arg Leu Arg His Arg Gly Arg Ala
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Val Gln Arg Pro Leu Pro Pro Leu Pro Pro Leu Pro Gln Thr Arg Lys
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Leu Cys Ser

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<210> 39
<211> 1017
<212> DNA
<213> Homo sapiens
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<400> 39

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cagagtggac cgctccccaa gccctccctc caggctctgc ccagctccct ggtgcccctq
                                                                       120
gagaagccag tgaccctccg gtgccaggga cctccgggcg tggacctgta ccgcctggag
                                                                       180
aagctgagtt ccagcaggta ccaggatcag gcagtcctct tcatcccggc catgaagaga
                                                                       240
agtetggetg gaegetaceg etgeteetac cagaaeggaa geetetggte eetgeecage
                                                                       300
gaccagetgg agetegttge caegggagtt tttgccaaac cetegetete ageccagece
                                                                       360
ggcccggcgg tgtcgtcagg aggggacgta accctacagt gtcagactcg gtatggcttt
                                                                       420
gaccaatttg ctctgtacaa ggaaggggac cctgcgccct acaagaatcc cgagagatgg
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taccgggcta gtttccccat catcacggtg accgccgccc acagcggaac ctaccgatgc
                                                                       540
tacagettet ccageaggga cccatacetg tggteggtee ccagegacee cetggagett
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gtggtcacag gaacctctgt gacccccagc cggttaccaa cagaaccacc ttcctcggta
                                                                       660
gcagaattet cagaagecae egetgaaetg acegteteat teacaaaeaa agtetteaca
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actgagactt ctaggagtat caccaccagt ccaaaggagt cagactctcc agctggtcct
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gcccgccagt actacaccaa gggcaacctg gtccggatat gcctcggggc tgtgatccta
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ataatcctgg cggggtttct ggcagaggac tggcacagcc ggaggaagcg cctgcggcac
                                                                       900
aggggcaggg ctgtgcagag gccgcttccg cccctgccgc ccctcccgca gacccggaaa
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<210> 40

<211> 339

<212> PRT

<213> Homo sapiens

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Arg Val Pro Ala Gln Ser Gly Pro Leu Pro Lys Pro Ser Leu Gln Ala
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                                 25
Leu Pro Ser Ser Leu Val Pro Leu Glu Lys Pro Val Thr Leu Arg Cys
                             40
Gln Gly Pro Pro Gly Val Asp Leu Tyr Arg Leu Glu Lys Leu Ser Ser
                        55
Ser Arg Tyr Gln Asp Gln Ala Val Leu Phe Ile Pro Ala Met Lys Arg
                    70
                                         75
Ser Leu Ala Gly Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser Leu Trp
                                     90
Ser Leu Pro Ser Asp Gln Leu Glu Leu Val Ala Thr Gly Val Phe Ala
                                 105
Lys Pro Ser Leu Ser Ala Gln Pro Gly Pro Ala Val Ser Ser Gly Gly
                            120
Asp Val Thr Leu Gln Cys Gln Thr Arg Tyr Gly Phe Asp Gln Phe Ala
                        135
                                             140
Leu Tyr Lys Glu Gly Asp Pro Ala Pro Tyr Lys Asn Pro Glu Arg Trp
                    150
                                         155
Tyr Arg Ala Ser Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser Gly
                165
                                     170
Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Arg Asp Pro Tyr Leu Trp Ser
            180
                                 185
                                                     190
Val Pro Ser Asp Pro Leu Glu Leu Val Val Thr Gly Thr Ser Val Thr
                            200
                                                 205
Pro Ser Arg Leu Pro Thr Glu Pro Pro Ser Ser Val Ala Glu Phe Ser
                        215
                                             220
Glu Ala Thr Ala Glu Leu Thr Val Ser Phe Thr Asn Lys Val Phe Thr
                    230
                                         235
Thr Glu Thr Ser Arg Ser Ile Thr Thr Ser Pro Lys Glu Ser Asp Ser
                                     250
Pro Ala Gly Pro Ala Arg Gln Tyr Tyr Thr Lys Gly Asn Leu Val Arg
            260
                                 265
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Ile Cys Leu Gly Ala Val Ile Leu Ile Ile Leu Ala Gly Phe Leu Ala
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Glu Asp Trp His Ser Arg Arg Lys Arg Leu Arg His Arg Gly Arg Ala
                        295
                                            300
Val Gln Arg Pro Leu Pro Pro Leu Pro Pro Leu Pro Gln Thr Arg Lys
                    310
                                        315
Ser His Gly Gly Gln Asp Gly Gly Arg Gln Asp Val His Ser Arg Gly
                                    330
Leu Cys Ser
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<210> 41 <211> 939 <212> DNA <213> Mus musculus

<400> 41

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<210> 42 <211> 313 <212> PRT

<213> Mus musculus

<400> 42

Met Ser Pro Ala Ser Pro Thr Phe Phe Cys Ile Gly Leu Cys Val Leu 1 5 10 Gln Val Ile Gln Thr Gln Ser Gly Pro Leu Pro Lys Pro Ser Leu Gln 25 Ala Gln Pro Ser Ser Leu Val Pro Leu Gly Gln Ser Val Ile Leu Arq Cys Gln Gly Pro Pro Asp Val Asp Leu Tyr Arg Leu Glu Lys Leu Lys 55 Pro Glu Lys Tyr Glu Asp Gln Asp Phe Leu Phe Ile Pro Thr Met Glu Arg Ser Asn Val Gly Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser His Trp Ser Leu Pro Ser Asp Gln Leu Glu Leu Ile Ala Thr Gly Val Tyr 105 Ala Lys Pro Ser Leu Ser Ala His Pro Ser Ser Ala Val Pro Gln Gly 120 125 Arg Asp Val Thr Leu Lys Cys Gln Ser Pro Tyr Ser Phe Asp Glu Phe 135 140

```
Val Leu Tyr Lys Glu Gly Asp Thr Gly Pro Tyr Lys Arg Pro Glu Lys
                    150
                                        155
Trp Tyr Arg Ala Asn Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser
                165
                                    170
                                                        175
Gly Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Ser Pro Tyr Leu Trp
                                185
                                                    190
Ser Ala Pro Ser Asp Pro Leu Val Leu Val Thr Gly Leu Ser Ala
                            200
                                                205
Thr Pro Ser Gln Val Pro Thr Glu Glu Ser Phe Pro Val Thr Glu Ser
                        215
                                            220
Ser Arg Arg Pro Ser Ile Leu Pro Thr Asn Lys Ile Ser Thr Thr Glu
                    230
                                        235
Lys Pro Met Asn Ile Thr Ala Ser Pro Glu Gly Leu Ser Pro Pro Ile
                245
                                    250
                                                        255
Gly Phe Ala His Gln His Tyr Ala Lys Gly Asn Leu Val Arg Ile Cys
            260
                                265
Leu Gly Ala Thr Ile Ile Ile Leu Leu Gly Leu Leu Ala Glu Asp
                           280
                                                285
Trp His Ser Arg Lys Lys Cys Leu Gln His Arg Met Arg Ala Leu Gln
                        295
Arg Pro Leu Pro Pro Leu Pro Leu Ala
                    310
      <210> 43
      <211> 939
      <212> DNA
      <213> Mus musculus
      <400> 43
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                                                                       120
ctgggtcagt cagttattct gaggtgccag ggacctccag atgtggattt atatcgcctg
                                                                       180
gagaaactga aaccggagaa gtatgaagat caagactttc tcttcattcc aaccatggaa
                                                                       240
agaagtaatg ctggacggta tcgatgctct tatcagaatg ggagtcactg gtctctccca
                                                                       300
agtgaccage ttgagetaat tgetacaggt gtgtatgeta aacceteact etcageteat
                                                                       360
cccaqctcag cagtccctca aggcagggat gtgactctga agtgccagag cccatacagt
                                                                       420
tttgatgaat tcgttctata caaagaaggg gatactgggc cttataagag acctgagaaa
                                                                       480
                                                                       540
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                                                                       600
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cttgtggtta ctggactctc tgccactccc agccaggtac ccacggaaga atcatttcct
                                                                       660
gtgacagaat cctccaggag accttccatc ttacccacaa acaaaatatc tacaactgaa
                                                                       720
aagcctatga atatcactgc ctctccagag gggctgagcc ctccaattgg ttttgctcat
                                                                       780
cagcactatg ccaaggggaa tctggtccgg atatgccttg gtgccacgat tataataatt
                                                                       840
                                                                       900
ttgttggggc ttctagcaga ggattggcac agtcggaaga aatgcctgca acacaggatg
                                                                       939
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      <210> 44
      <211> 313
      <212> PRT
      <213> Mus musculus
      <400> 44
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                 5
                                    10
Gln Val Ile Gln Thr Gln Ser Gly Pro Leu Pro Lys Pro Ser Leu Gln
Ala Gln Pro Ser Ser Leu Val Pro Leu Gly Gln Ser Val Ile Leu Arq
```

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Cys Gln Gly Pro Pro Asp Val Asp Leu Tyr Arg Leu Glu Lys Leu Lys
Pro Glu Lys Tyr Glu Asp Gln Asp Phe Leu Phe Ile Pro Thr Met Glu
                    70
                                        75
Arg Ser Asn Ala Gly Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser His
                                    90
Trp Ser Leu Pro Ser Asp Gln Leu Glu Leu Ile Ala Thr Gly Val Tyr
                                105
Ala Lys Pro Ser Leu Ser Ala His Pro Ser Ser Ala Val Pro Gln Gly
                            120
                                                125
Arg Asp Val Thr Leu Lys Cys Gln Ser Pro Tyr Ser Phe Asp Glu Phe
                        135
                                            140
Val Leu Tyr Lys Glu Gly Asp Thr Gly Pro Tyr Lys Arg Pro Glu Lys
                    150
                                        155
Trp Tyr Arg Val Asn Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser
                165
                                    170
Gly Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Ser Pro Tyr Leu Trp
            180
                                185
Ser Ala Pro Ser Asp Pro Leu Val Leu Val Val Thr Gly Leu Ser Ala
                            200
                                                205
Thr Pro Ser Gln Val Pro Thr Glu Glu Ser Phe Pro Val Thr Glu Ser
Ser Arg Arg Pro Ser Ile Leu Pro Thr Asn Lys Ile Ser Thr Thr Glu
                    230
                                        235
Lys Pro Met Asn Ile Thr Ala Ser Pro Glu Gly Leu Ser Pro Pro Ile
                                    250
Gly Phe Ala His Gln His Tyr Ala Lys Gly Asn Leu Val Arg Ile Cys
                                265
Leu Gly Ala Thr Ile Ile Ile Leu Leu Gly Leu Leu Ala Glu Asp
                            280
Trp His Ser Arg Lys Lys Cys Leu Gln His Arg Met Arg Ala Leu Gln
                        295
                                            300
Arg Pro Leu Pro Pro Leu Pro Leu Ala
305
                    310
      <210> 45
      <211> 939
      <212> DNA
      <213> Mus musculus
      <400> 45
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acacagagtg gcccactccc caagccttcc ctccaggctc agcccagttc cctggtaccc
                                                                       120
ctgggtcagt cagttattct gaggtgccag ggacctccag atgtggattt atatcgcctg
                                                                       180
gagaaactga aaccggagaa gtatgaagat caagactttc tcttcattcc aaccatggaa
                                                                       240
                                                                       300
agaagtaatg ctggacggta tcgatgctct tatcagaatg ggagtcactg gtctctccca
agtgaccage ttgagetaat tgetacaggt gtgtatgeta aacceteact etcageteat
                                                                       360
cccagctcag cagcccctca aggcagggat gtgactctga agtgccagag cccatacagt
                                                                       420
tttgatgaat tcgttctata caaagaaggg gatactgggc cttataagag acctgagaaa
                                                                       480
tggtaccggg ccaatttccc catcatcaca gtgactgctg ctcacagtgg gacgtaccgg
                                                                       540
tgttacagct tctccagctc atctccatac ctgtggtcag ccccgagtga ccctctagtg
                                                                       600
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cttgtggtta ctggactctc tgccactccc agccaggtac ccacggaaga atcatttcct

gtgacagaat cctccaggag accttccatc ttacccacaa acaaaatatc tacaactgaa

aagectatga atateaetge etetecagag gggetgagee etecaattgg ttttgeteat

cagcactatg ccaaggggaa totggtoogg atatgcottg gtgccacqat tataataatt

ttgttggggc ttctagcaga ggattggcac agtcggaaga aatgcctqca acacaqqatq

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660

720

780

840

900

<210> 46 <211> 313 <212> PRT

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                 5
Gln Val Ile Gln Thr Gln Ser Gly Pro Leu Pro Lys Pro Ser Leu Gln
            20
                                25
Ala Gln Pro Ser Ser Leu Val Pro Leu Gly Gln Ser Val Ile Leu Arg
                            40
                                                45
Cys Gln Gly Pro Pro Asp Val Asp Leu Tyr Arg Leu Glu Lys Leu Lys
                        55
Pro Glu Lys Tyr Glu Asp Gln Asp Phe Leu Phe Ile Pro Thr Met Glu
                    70
                                        75
Arg Ser Asn Ala Gly Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser His
                                    90
Trp Ser Leu Pro Ser Asp Gln Leu Glu Leu Ile Ala Thr Gly Val Tyr
                                105
Ala Lys Pro Ser Leu Ser Ala His Pro Ser Ser Ala Ala Pro Gln Gly
                            120
                                                125
Arg Asp Val Thr Leu Lys Cys Gln Ser Pro Tyr Ser Phe Asp Glu Phe
                        135
    130
Val Leu Tyr Lys Glu Gly Asp Thr Gly Pro Tyr Lys Arg Pro Glu Lys
                                        155
                    150
                                                             160
Trp Tyr Arg Ala Asn Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser
                                    170
Gly Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Ser Pro Tyr Leu Trp
                                185
Ser Ala Pro Ser Asp Pro Leu Val Leu Val Val Thr Gly Leu Ser Ala
                            200
                                                205
Thr Pro Ser Gln Val Pro Thr Glu Glu Ser Phe Pro Val Thr Glu Ser
                        215
                                            220
Ser Arg Arg Pro Ser Ile Leu Pro Thr Asn Lys Ile Ser Thr Thr Glu
225
                    230
                                        235
Lys Pro Met Asn Ile Thr Ala Ser Pro Glu Gly Leu Ser Pro Pro Ile
                245
                                    250
Gly Phe Ala His Gln His Tyr Ala Lys Gly Asn Leu Val Arg Ile Cys
            260
                                265
                                                     270
Leu Gly Ala Thr Ile Ile Ile Leu Leu Gly Leu Leu Ala Glu Asp
                            280
                                                285
Trp His Ser Arg Lys Lys Cys Leu Gln His Arg Met Arg Ala Leu Gln
                        295
                                            300
Arg Pro Leu Pro Pro Leu Pro Leu Ala
305
                    310
      <210> 47
      <211> 939
      <212> DNA
      <213> Mus musculus
      <400> 47
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acacagagtg geocactece caageettee etecaggete ageceagtte cetggtacee
ctgggtcagt cagttattct gaggtgccag ggacctccag atgtggattt atatcgcctg
gagaaactga aaccggagaa gtatgaagat caagactttc tcttcattcc aaccatggaa
agaagtaatg ctggacggta tcgatgctct tatcagaatg ggagtcactg gtctctccca
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60

120

180

240

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agtgaccage ttgagetaat tgetacaggt gtgtatgeta aacceteact etcageteat
                                                                       360
cccaqctcaq caqtccctca aqqcaqqqat qtqactctga agtgccagag cccatacagt
                                                                       420
tttgatgaat tegttetata caaagaaggg gataetggge ettataagag acetgagaaa
                                                                       480
tggtaccggg ccaatttccc catcatcaca gtgactgctg ctcacagtgg gacgtaccgg
                                                                       540
tgttacagct tctccagctc atctccatac ctgtggtcag ccccgagtga ccctctagtg
                                                                       600
cttgtggtta ctggactctc tgccactccc agccaggtac ccacggaaga atcatttcct
                                                                       660
gtgacagaat cctccaggag accttccatc ttacccacaa acaaaatatc tacaactgaa
                                                                       720
aagcctatga atatcactgc ctctccagag gggctgagcc ctccaattgg ttttgctcat
                                                                       780
cagcactatg tcaaggggaa tctggtccgg atatgccttg gtgccacgat tataataatt
                                                                       840
                                                                       900
ttgttggggc ttctagcaga ggattggcac agtcggaaga aatgcctgca acacaggatg
                                                                       939
agagetttgc aaaggecact accaeecete ceaetggee
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<210> 48

<211> 313

<212> PRT

<213> Mus musculus

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Met Ser Pro Ala Ser Pro Thr Phe Phe Cys Ile Gly Leu Cys Val Leu
Gln Val Ile Gln Thr Gln Ser Gly Pro Leu Pro Lys Pro Ser Leu Gln
                                25
            20
Ala Gln Pro Ser Ser Leu Val Pro Leu Gly Gln Ser Val Ile Leu Arg
                            40
Cys Gln Gly Pro Pro Asp Val Asp Leu Tyr Arg Leu Glu Lys Leu Lys
Pro Glu Lys Tyr Glu Asp Gln Asp Phe Leu Phe Ile Pro Thr Met Glu
                    70
                                        75
Arg Ser Asn Ala Gly Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser His
                                    90
Trp Ser Leu Pro Ser Asp Gln Leu Glu Leu Ile Ala Thr Gly Val Tyr
Ala Lys Pro Ser Leu Ser Ala His Pro Ser Ser Ala Val Pro Gln Gly
                            120
        115
Arg Asp Val Thr Leu Lys Cys Gln Ser Pro Tyr Ser Phe Asp Glu Phe
                        135
                                            140
Val Leu Tyr Lys Glu Gly Asp Thr Gly Pro Tyr Lys Arg Pro Glu Lys
                    150
                                        155
Trp Tyr Arg Ala Asn Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser
                165
                                    170
                                                         175
Gly Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Ser Pro Tyr Leu Trp
                                185
                                                     190
            180
Ser Ala Pro Ser Asp Pro Leu Val Leu Val Val Thr Gly Leu Ser Ala
        195
                            200
                                                 205
Thr Pro Ser Gln Val Pro Thr Glu Glu Ser Phe Pro Val Thr Glu Ser
                        215
                                             220
Ser Arg Arg Pro Ser Ile Leu Pro Thr Asn Lys Ile Ser Thr Thr Glu
                                         235
Lys Pro Met Asn Ile Thr Ala Ser Pro Glu Gly Leu Ser Pro Pro Ile
                245
                                     250
Gly Phe Ala His Gln His Tyr Val Lys Gly Asn Leu Val Arg Ile Cys
                                265
Leu Gly Ala Thr Ile Ile Ile Leu Leu Gly Leu Leu Ala Glu Asp
                            280
Trp His Ser Arg Lys Lys Cys Leu Gln His Arg Met Arg Ala Leu Gln
                        295
                                             300
Arg Pro Leu Pro Pro Leu Pro Leu Ala
305
                    310
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<210> 49
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      <212> PRT
      <213> Homo sapiens
     <400> 49
Ser Tyr Trp Ile Ser
      <210> 50
      <211> 17
      <212> PRT
      <213> Homo sapiens
     <400> 50
Arg Ile Asp Pro Ser Asp Ser Tyr Thr Asn Tyr Ser Pro Ser Phe Gln
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Gly
      <210> 51
      <211> 11
      <212> PRT
      <213> Homo sapiens
     <400> 51
His Gly Ser Asp Arg Gly Trp Gly Phe Asp Pro
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      <210> 52
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      <212> PRT
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Asn Gly Val Asn Ser Asp Val Gly Tyr Tyr Asn Pro Val Ser
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      <212> PRT
      <213> Homo sapiens
      <400> 53
Glu Val Asn Lys Arg Pro Ser
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      <210> 54
      <211> 9
      <212> PRT
      <213> Homo sapiens
      <400> 54
Ser Tyr Thr Ser Asn Asn Thr Pro Val
      <210> 55
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<211> 5

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     <400> 55
Ser Tyr Ser Met Asn
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      <211> 17
      <212> PRT
      <213> Homo sapiens
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Ser Ile Ser Ser Ser Gly Arg Tyr Ile Ser Tyr Gly Asp Ser Val Lys
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Gly
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      <212> PRT
      <213> Homo sapiens
     <400> 57
Asp Ile Ser Ser Ala Met Asp Val
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     <210> 58
     <211> 13
      <212> PRT
      <213> Homo sapiens
      <400> 58
Thr Arg Gly Gly Asn Asn Ile Gly Ser Lys Ser Val His
      <210> 59
      <211> 7
      <212> PRT
      <213> Homo sapiens
      <400> 59
Asp Asp Ser Asp Arg Pro Ser
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      <210> 60
      <211> 10
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      <213> Homo sapiens
      <400> 60
Val Trp Asp Ser Ser Ser Asp His His Val
      <210> 61
      <211> 5
      <212> PRT
      <213> Homo sapiens
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<400> 61
Ser Tyr Trp Met Ser
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      <400> 62
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Gly
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      <211> 14
      <212> PRT
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Asp Lys Trp Glu Ala Tyr Ile Thr Pro Gly Ala Phe Asp Val
      <210> 64
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      <212> PRT
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Thr Arg Ser Ser Gly Ser Ile Ala Ser Asn Tyr Val Gln
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      <400> 65
Glu Asp Asn Gln Arg Pro Ser
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      <211> 8
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      <400> 66
Ser Tyr Asp Ser Ser Asn Val Val
      <210> 67
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Asn Tyr Glu Met Asn
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Tyr Ile Ser Ser Ser Gly Ser Thr Ile His Asn Ala Asp Ser Val Lys
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Gly
      <210> 69
      <211> 12
      <212> PRT
      <213> Homo sapiens
      <400> 69
Asp Gly Tyr Ser His Gly Leu Asp Ala Phe Asp Ile
      <210> 70
      <211> 13
      <212> PRT
      <213> Homo sapiens
      <400> 70
Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn Thr Val His
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      <213> Homo sapiens
      <400> 71
Ser Tyr Asn Gln Arg Pro Ser
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Ser Trp Asp Asp Arg Leu Asn Gly Tyr Leu
      <210> 73
      <211> 5
      <212> PRT
      <213> Homo sapiens
      <400> 73
Asp Tyr Gly Met Ser
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<210> 74
       <211> 9
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       <213> Homo sapiens
      <400> 74
Thr Gly Tyr Ala Asp Ser Val Lys Gly
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       <212> PRT
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Asp Gln Tyr Ser Ser Gly Arg Asp Ala Phe Asp Ile
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Thr Gly Ser Ser Ser Asp Val Gly Gly Tyr Asn Tyr Val Ser
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       <212> PRT
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Glu Val Ser Arg Asn Pro Ser
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